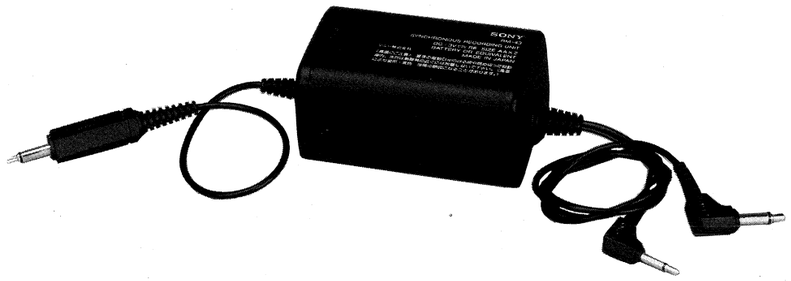
RM-43

SERVICE MANUAL

AEP Model



SPECIFICATIONS

Power requirements	3 V DC, two R6 (size AA) batteries
Battery life	Sony battery SUM-3 (NS) Approx. 700 hours (12 hours stand-by and 1 hour recording on average)
Dimensions	Approx. 71 × 39 × 31 mm (w/h/d) (2⅞ × 1⁹⁄₁₆ × 1¼ inches) excl. projecting parts
Weight	Approx. 94 g (33 oz) incl. batteries

You can record a desired station at the desired time using the RM-43 Synchronous recording unit. It activates the connected TCM-25 Cassette-corder equipped with the timer stand-by switch when the radio with the built-in timer starts at the time set.

SYNCHRONOUS RECORDING UNIT

SONY®

MICROFILM

SECTION 1
GENERAL

When Your Radio Has a REC OUT Jack

1 **Tune in the desired station and set the timer.**

2 **Connect the units.**

3 **Set INPUT selector to REC OUT.**

4 **Prepare the cassette-corder for timer standby recording.**

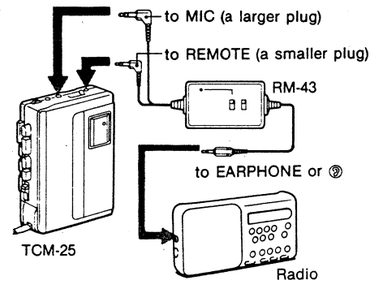
5 **Set STANDBY switch to ON.**
The indicator starts to blink slowly. Recording will start at the preset time and the indicator lights up steadily while recording.

When the tape ends, the RM-43 automatically turns off. **After use,** set the STANDBY switch to OFF.

For details, see the instruction manual of the radio and cassette-corder.

When your radio has an earphone jack

Connect to the EARPHONE jack, and adjust the volume of your radio.



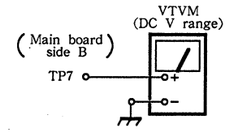
① Tune in the desired station.
② Set the cassette-corder to pause mode, and depress ●.
③ Connect the units.
④ Set INPUT selector to EARPHONE.
⑤ Set STANDBY switch to ON.
The indicator satrts to blink.
⑥ Adjust the volume of your radio, monitoring the sound with the earphone of the cassette-corder.
⑦ After adjusting the volume, set STANDBY to OFF.
⑧ Set the timer of the radio and prepare for the timer activated recording.
◯ Release the pause mode of the cassette-corder by pressing ■, then follow the steps **4** and **5**.

SECTION 2
ADJUSTMENTS

2-1. ELECTRICAL ADJUSTMENTS

Voltage Adjustment

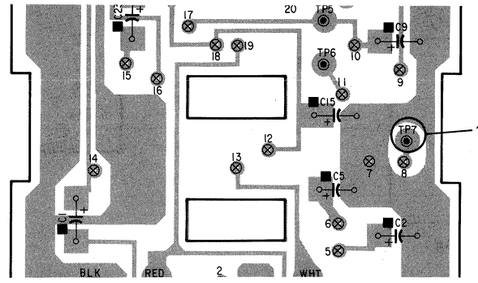
Procedure :



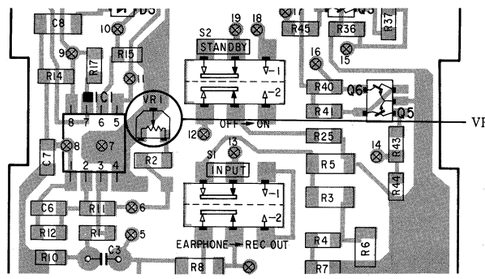
1. Connect a VTVM (DC V range) to the TP7 (IC1 PIN①).
2. Adjust RV1 so that the reading on VTVM is 0.8VDC.

Adjustment Location : main board

(side B)



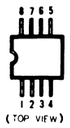
(side A)



SECTION 3
DIAGRAMS

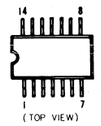
3-1. SEMICONDUCTOR LEAD LAYOUTS

LA6393M

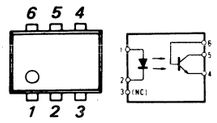


2SC634SP

TC74HC00F

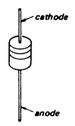


MA121



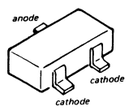
XN1501

ISS119

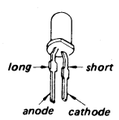


2SB624-BV3

IS2835

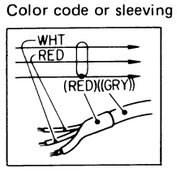


TLR124



Note:

- Color code or sleeving over the end of the jacket.

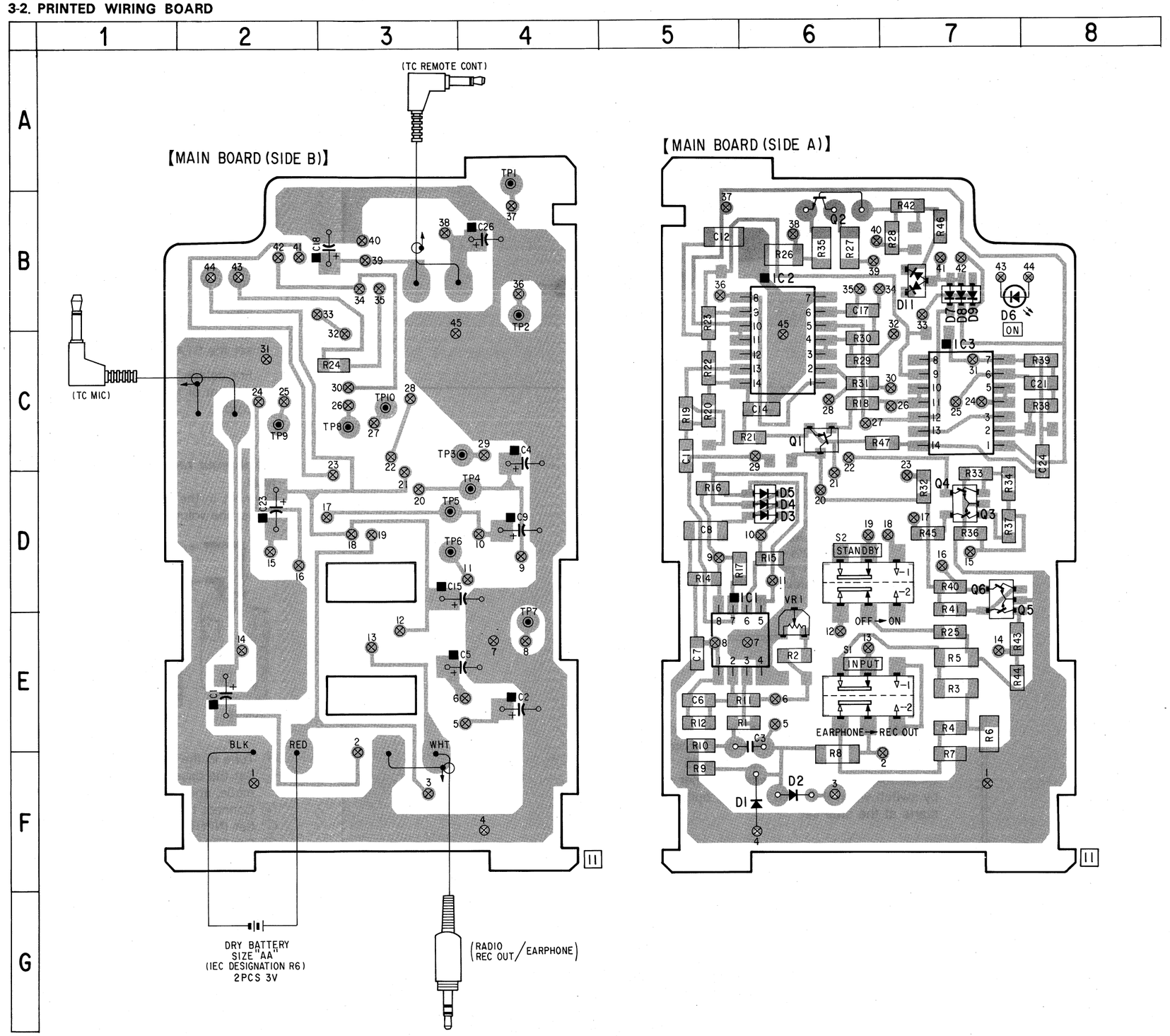


- ●—— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ⊗ : Through hole.
- □ : Chip components extracted from the rear side.

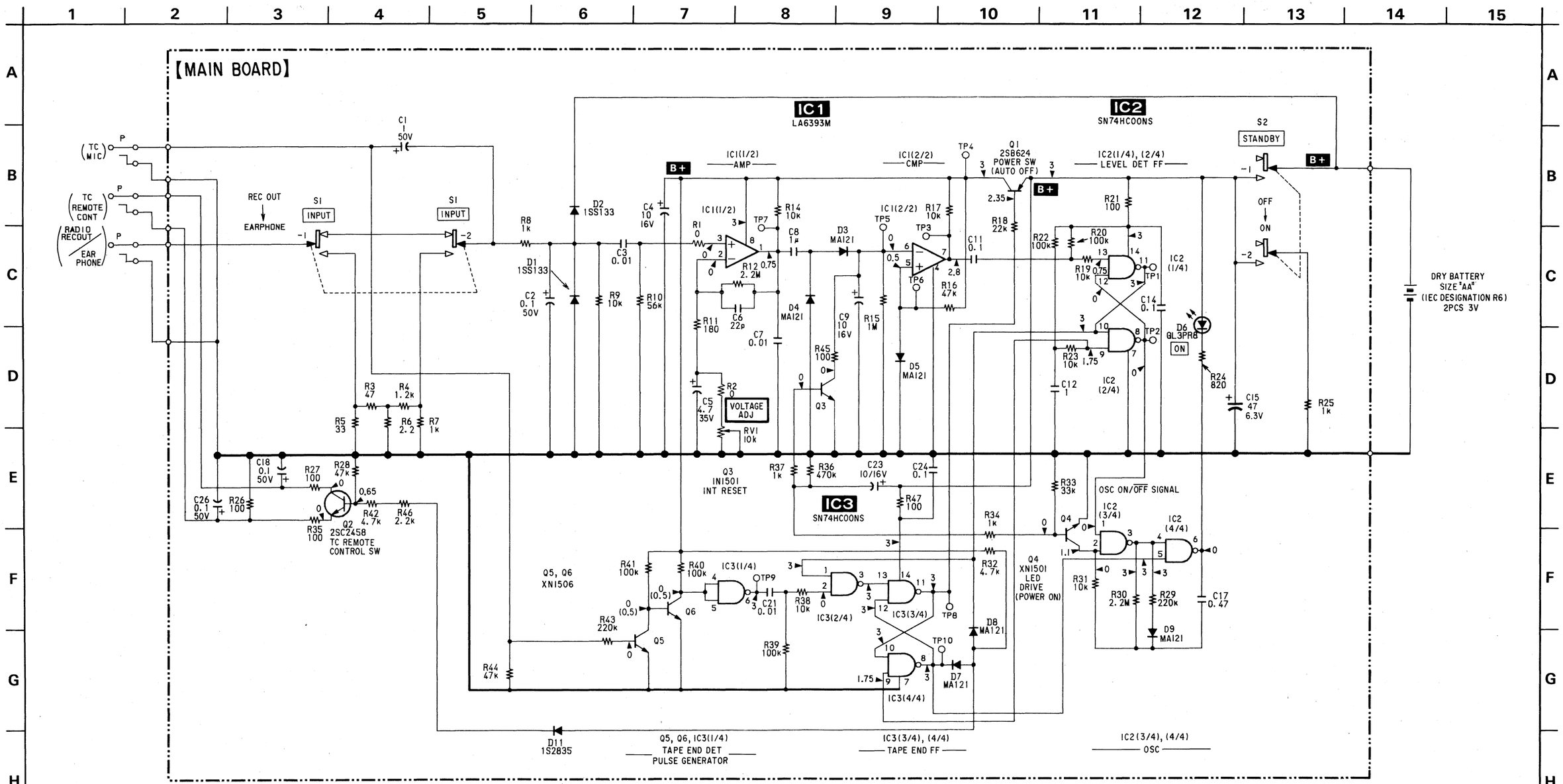
● SEMICONDUCTOR LOCATION

Ref.No.	Location
IC1	E-5
IC2	B-6
IC3	C-7
Q1	C-6
Q2	B-6
Q3	D-7
Q4	D-7
Q5	D-7
Q6	D-7
D1	F-6
D2	F-6
D3	D-6
D4	D-6
D5	D-6
D6	B-7
D7	B-7
D8	B-7
D9	B-7
D11	B-7

3-2. PRINTED WIRING BOARD



3-3. SCHEMATIC DIAGRAM



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Switch

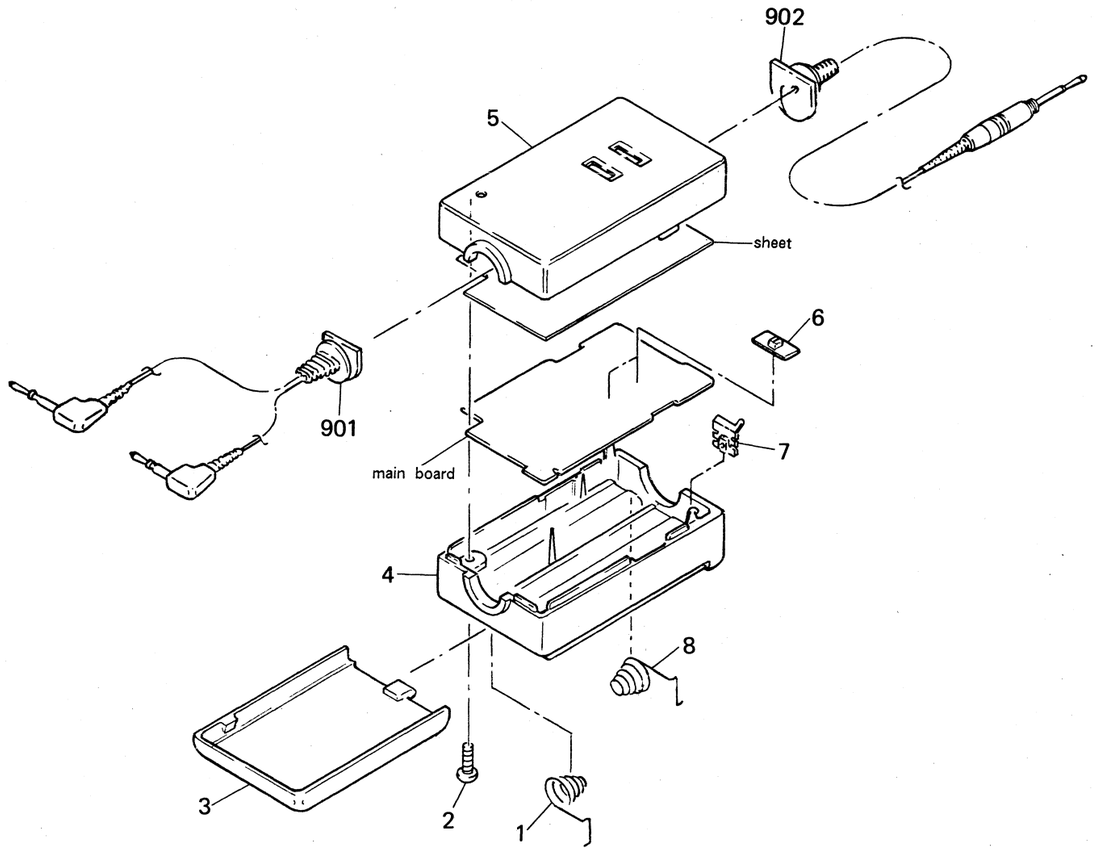
Ref. No.	Switch	Position
S1	INPUT (SELECT)	EARPHONE
S2	STANDBY	OFF

- B+ : B+ Line
- ▭ : adjustment for repair.
- Power voltage is dc 3V and fed with regulated dc power supply from power voltage terminal.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- no mark: EARPHONE
- ( ): REC OUT

SECTION 4
EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.



No.	Part No.	Description	Remarks
1	3-898-243-01	SPRING	
2	7-685-134-19	SCREW +P 2.6X8 TYPE2 SLIT	
3	3-898-234-11	LID, BATTERY CASE	
4	3-898-242-11	COVER (B)	
5	3-898-241-11	COVER (A)	
6	3-898-235-01	COVER, SWITCH	
7	3-898-229-01	TERMINAL BOARD, PLUS	
8	3-898-230-01	SPRING	
901	1-574-156-11	CORD (WITH PLUG) (B)	
902	1-574-155-11	CORD (WITH PLUG) (A)	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

Ref.No.	Part No.	Description			
901	1-574-156-11	CORD (WITH PLUG) (B)			
902	1-574-155-11	CORD (WITH PLUG) (A)			
C1	1-126-193-11	CAP,ELECT	1MF	20%	50V
C2	1-126-187-11	CAP,ELECT	0.1MF	20%	50V
C3	1-161-051-00	CERAMIC	0.01MF	20%	25V
C4	1-124-779-00	CAP,ELECT	10MF	20%	16V
C5	1-126-198-11	CAP,ELECT	4.7MF	20%	35V
C6	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C7	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C8	1-162-638-11	CERAMIC CHIP	1MF		16V
C9	1-124-779-00	CAP,ELECT	10MF	20%	16V
C11	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C12	1-162-638-11	CERAMIC CHIP	1MF		16V
C14	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C15	1-126-205-11	CAP,ELECT	47MF	20%	6.3V
C17	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C18	1-126-187-11	CAP,ELECT	0.1MF	20%	50V
C21	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C23	1-124-779-00	CAP,ELECT	10MF	20%	16V
C24	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C26	1-126-187-11	CAP,ELECT	0.1MF	20%	50V
D1	8-719-911-19	DIODE 1SS119			
D2	8-719-911-19	DIODE 1SS119			
D3, D4, D5	8-719-404-40	DIODE MA121			
D6	8-719-812-41	DIODE TLR124			
D7, D8, D9	8-719-404-40	DIODE MA121			
D11	8-719-100-03	DIODE 1S2835			
IC1	8-759-821-33	IC LA6393M			
IC2	8-759-204-94	IC TC74HC00F			
IC3	8-759-204-94	IC TC74HC00F			
Q1	8-729-162-43	TRANSISTOR 2SB624-BV3			
Q2	8-729-600-27	TRANSISTOR 2SC634SP			
Q3, Q4	8-729-402-13	TRANSISTOR XN1501			
Q5, Q6	8-729-402-13	TRANSISTOR XN1501			
R1	1-216-295-00	METAL GLAZE	0	5%	1/10W
R2	1-216-295-00	METAL GLAZE	0	5%	1/10W
R3	1-216-166-00	METAL GLAZE	47	5%	1/8W
R4	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R5	1-216-162-00	METAL GLAZE	33	5%	1/8W
R6	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R7	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R8	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R9	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R10	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R11	1-216-031-00	METAL GLAZE	180	5%	1/10W
R12	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R14	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R15	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R16	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R17	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R18	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R19	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R20	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R21	1-216-025-00	METAL GLAZE	100	5%	1/10W
R22	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R23	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R24	1-216-047-00	METAL GLAZE	820	5%	1/10W
R25	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R26	1-216-174-00	METAL GLAZE	100	5%	1/8W
R27	1-216-174-00	METAL GLAZE	100	5%	1/8W
R28	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R29	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R30	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R31	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R32	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R33	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R34	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R35	1-216-174-00	METAL GLAZE	100	5%	1/8W
R36	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R37	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R38	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R39	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R40	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R41	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R42	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R43	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R44	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R45	1-216-025-00	METAL GLAZE	100	5%	1/10W
R46	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R47	1-216-025-00	METAL GLAZE	100	5%	1/10W
RV1	1-238-090-11	RES, ADJ CERMET 10K			
S1	1-554-903-21	SWITCH, SLIDE (INPUT)			
S2	1-554-903-21	SWITCH, SLIDE (STANDBY)			

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Audio Group

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